ELSEVIER

International Journal of Mass Spectrometry 192 (1999) 445

International Journal of Mass Spectrometry

Author index

Aichele, K., 27
Aumayr, F., 407, 415
Awaya, Y., 49

Badnell, N.R., 225
Bandrauk, A.D., 379
Bannister, M.E., 39
Bärsch, S., 125
Becker, K., 1
Ben-Itzhak, I., 157
Berrington, K.A., 39
Bhardwaj, V.R., 367
Bhatti, M.I., 149
Biasioli, F., 267
Böhme, D.K., 215
Bremer, J.H., 425

Caraiman, D., 215
Castleman, A.W., Jr., 327
Chu, I.K., 303
Chung, Y.-S., 39
Church, D.A., 149

David, R., 267
Deutsch, H., 1
Djurić, N., 39
Dolejšek, Z., 191
Döppner, T., 387
Dörner, R., 65
Dreizler, R., 65
Dunn, G.H., 39

Eder, H., 407
Eland, J.H.D., 281

Farizon, B., 259
Farizon, M., 259
Fárník, M., 191
Fiegele, T., 267
Field, T.A., 281
Fong, L.-M., 185
Ford, J.V., 327
Fournier, R., 303
Freitas, M.A., 319

Gaillard, M.J., 259
Gertner, I., 157
Godunov, A.L., 65
Grant, R.P., 111
Grether, M., 393
Gronert, S., 185

Hadjar, O., 245
Harris, F.M., 111
Hathiramani, D., 27
Hatke, N., 393
Heiland, W., 393
Herman, Z., 165, 191
Hoekstra, R., 245
Hopkinson, A.C., 215, 303
Hrušák, J., 165

Iwata, S., 165

Kaltsoyannis, N., 205
Kambara, T., 49
Kanai, Y., 49
Koyanagi, G.K., 215

Levy, Y., 157
Lifshitz, C., 99
Ling, Y., 215

Mair, C., 267
Manske, J., 245
Märk, T.D., 1, 267
Marshall, A.G., 319
Mathur, D., 367
Matt, S., 1, 267
McCullough, R.W., 141
McGuire, J.H., 65
Meiwes-Broer, K.H., 387
Melin, G., 87
Mergel, V., 65
Moehs, D.P., 149
Moores, D.L., 23
Morgenstern, R., 245
Muiño, R.D., 425
Müller, A., 9

Närmann, A., 393

Parry, D.E., 111
Peres, T., 99
Petrie, S., 173
Poth, L., 327
Price, S.D., 205

Radom, L., 173
Rajgara, F.A., 367
Robin, A., 393
Rodriquez, C.F., 303
Rosner, B., 157

Safvan, C.P., 367
Salzborn, E., 27
Scheier, P., 267
Schlathölter, T., 245
Schmidt-Böcking, H., 65
Schröder, D., 125
Schuch, R., 225
Schumacher, M., 387
Schwarz, H., 125
Senn, G., 1, 267
Seto, C., 289
Shevelko, V.P., 75
Shore, B.W., 65
Sidky, E.Y., 157
Siu, K.W.M., 303
Smith, A.C.H., 39
Sonderegger, M., 267
Stamatovic, A., 267
Stenke, M., 27
Stolterfoht, N., 425
Stone, J.A., 289
Sykes, B.D., 319

Tafadar, N., 205
Tawara, H., 75
Teuber, S., 387
Tiggesbäumker, J., 387
Tolmanov, S.G., 65
Träbert, E., 347

Varga, P., 415
Vincze, A., 99

Wallbank, B., 39
Wang, F., 319
Winter, HP., 407, 415
Woitke, O., 39

Yamazaki, Y., 437
Yinon, J., 99
Yu, H.T., 379

Žabka, J., 191
Zhong, Q., 327
Zong, W., 225

ELSEVIER

International Journal of Mass Spectrometry 192 (1999) 447–451

International Journal of Mass Spectrometry

Subject index

Ab initio calculations
Electron-transfer and neutral-loss reactions in collisions of CF_3^{2+} with argon, 205
Gas phase reactions of dianions. 2. The effect of a second charge on S_N2 potential energy surfaces: an ab initio study, 185
Heat of formation of the SiF_2^{++} dication: a theoretical prediction, 165
Magnesium- and calcium-containing molecular dications: a high-level theoretical study, 173
Adduct ions
A possible origin of $[M - nH + mX]^{(m-n)+}$ ions (X = alkali metal ions) in electrospray mass spectrometry of peptides, 303
Alkali metal
A possible origin of $[M - nH + mX]^{(m-n)+}$ ions (X = alkali metal ions) in electrospray mass spectrometry of peptides, 303
Atomic lifetimes
Photon observations on excited multiply charged ions, 347
Atomic spectra
Photon observations on excited multiply charged ions, 347
Atoms
Multiple ionization of negative and positive ions, neutral atoms, and molecules under electron impact: data and databases, 75
Auger transitions
Formation and cascading decay of hollow Ar atoms at a Si surface, 425

Binary encounter approximation
Multiple *K*- and *L*-shell ionizations of target atoms by collisions with high-energy heavy ions, 49
B3LYP calculations
Redox properties of charged and neutral iron chlorides $FeCl_m^n$ ($m = 1-3$; $n = -1, 0, +1$, and $+2$), 125

Calcium
Magnesium- and calcium-containing molecular dications: a high-level theoretical study, 173
Charge inversion
Redox properties of charged and neutral iron chlorides $FeCl_m^n$ ($m = 1-3$; $n = -1, 0, +1$, and $+2$), 125
Charge reduction
Low energy collisionally activated dissociation of $Cu^{2+}(glycine)(H_2O)$, $Cu^{2+}(glycine)(H_2O)_2$, $Cu^{2+}(glycine)_2$, and $Cu^{2+}(glycylglycine)_2$, 289
Charge resonance ionization
Laser control of molecular ionization with intense short laser pulses, 379
Charge stripping
Long lived CH^{2+} and CD^{2+} dications, 157
Redox properties of charged and neutral iron chlorides $FeCl_m^n$ ($m = 1-3$; $n = -1, 0, +1$, and $+2$), 125
Chloride transfer
Selected-ion flow tube studies of reactions of C_{60}^{n+} ($n = 1, 2, 3$) with chlorinated ethylenes, 215
Chlorinated ethylenes
Selected-ion flow tube studies of reactions of C_{60}^{n+} ($n = 1, 2, 3$) with chlorinated ethylenes, 215
Classical over barrier model
Beam capillary spectroscopy, 437
Close coupling
Absolute cross sections for near-threshold electron-impact excitation of Be-like C^{2+}, N^{3+}, and O^{4+} ions, 39
Cluster–cluster collisions
Multifragmentation after multi-ionization of hydrogen clusters in high energy cluster–atom and cluster–cluster collisions, 259
Cluster multifragmentation
Multifragmentation after multi-ionization of hydrogen clusters in high energy cluster–atom and cluster–cluster collisions, 259
Clusters
Femtosecond laser interactions with methyl iodide clusters. 2. Coulomb explosion at 397 nm, 327
Coherent control
Laser control of molecular ionization with intense short laser pulses, 379
Collision
Absolute cross sections for near-threshold electron-impact excitation of Be-like C^{2+}, N^{3+}, and O^{4+} ions, 39
Collisional activation
A possible origin of $[M - nH + mX]^{(m-n)+}$ ions (X = alkali metal ions) in electrospray mass spectrometry of peptides, 303
Collisionally activated dissociation (CAD)
Low energy collisionally activated dissociation of $Cu^{2+}(glycine)(H_2O)$, $Cu^{2+}(glycine)(H_2O)_2$, $Cu^{2+}(glycine)_2$, and $Cu^{2+}(glycylglycine)_2$, 289
Cooled highly charged ions
Recombination of cooled highly charged ions with low-energy electrons, 225
Copper(II)
Low energy collisionally activated dissociation of $Cu^{2+}(glycine)(H_2O)$, $Cu^{2+}(glycine)(H_2O)_2$, $Cu^{2+}(glycine)_2$, and $Cu^{2+}(glycylglycine)_2$, 289
Coulomb explosion
Doubly charged ions in the electron ionization mass spectra of 4,6-di(substituted)amino *s*-triazines, 99
Coulomb explosions

Femtosecond laser interactions with methyl iodide clusters. 2. Coulomb explosion at 397 nm, 327
Coulomb potential
Gas phase reactions of dianions. 2. The effect of a second charge on S_N2 potential energy surfaces: an ab initio study, 185
Cross section
Calculation of cross sections and rate coefficients for the electron impact multiple ionization of beryllium, boron, carbon, and oxygen atoms, 1
Electron-impact ionization of Fe^{5+} ions, 27

Dianion
Gas phase reactions of dianions. 2. The effect of a second charge on S_N2 potential energy surfaces: an ab initio study, 185
Dications
Electron-transfer and neutral-loss reactions in collisions of CF_3^{2+} with argon, 205
Heat of formation of the SiF_2^{++} dication: a theoretical prediction, 165
Long lived CH^{2+} and CD^{2+} dications, 157
Magnesium- and calcium-containing molecular dications: a high-level theoretical study, 173
Double charged ions
Fragmentation dynamics of SO_2^{2+}, 281
Double-charge-transfer (DCT) spectroscopy
An experimental and computational study of the double ionization of CH_3Cl, CH_2Cl_2, and $CHCl_3$ molecules to singlet and triplet electronic states of their dications, 111
Double ionization
Time ordering in fast double ionization, 65
Double ionization energies
An experimental and computational study of the double ionization of CH_3Cl, CH_2Cl_2, and $CHCl_3$ molecules to singlet and triplet electronic states of their dications, 111
Doubly charged ions
Doubly charged ions in the electron ionization mass spectra of 4,6-di(substituted)amino *s*-triazines, 99
Doubly charged molecules
D_2^{2+} dication as a probe of spatial alignment of D_2 molecules in intense laser light, 367

Electron beam ion trap (EBIT)
Precision and accuracy of lifetimes of metastable levels using the Kingdon trap technique, 149
Electron collisions
Plasma rate coefficients for highly charged ion–electron collisions: new experimental access via ion storage rings, 9
Electron correlation
Time ordering in fast double ionization, 65
Electron cyclotron resonance
Electron cyclotron resonance ion sources of highly charged ions: from classical to superconducting sources, 87
Electron impact ionization
Application of the Deutsch-Märk formalism to the calculation of cross sections for the multiple ionization of beryllium, boron, carbon, and oxygen atoms by electron impact, 1
Doubly charged ions in the electron ionization mass spectra of 4,6-di(substituted)amino *s*-triazines, 99
Electron-impact ionization of Fe^{5+} ions, 27
Fully relativistic calculations of cross sections for electron impact ionization of carbon-like uranium ions, 23
Electron-induced dissociation
Spontaneous and induced dissociation of singly and multiply charged fullerene ions, 267
Electron ionization
Calculation of cross sections and rate coefficients for the electron impact multiple ionization of beryllium, boron, carbon, and oxygen atoms, 1
Electron spectroscopy
Formation and cascading decay of hollow Ar atoms at a Si surface, 425
Electron transfer
Electron-transfer and neutral-loss reactions in collisions of CF_3^{2+} with argon, 205
Redox properties of charged and neutral iron chlorides $FeCl_m^n$ ($m = 1-3$; $n = -1, 0, +1$, and $+2$), 125
Electrostatic repulsion
Gas phase reactions of dianions. 2. The effect of a second charge on S_N2 potential energy surfaces: an ab initio study, 185
Elementary reactions of molecular dications
Dynamics of chemical and charge transfer reactions of molecular dications: beam scattering and total cross section data on CF_2D^+ (CF_2H^+), CF_2^+, and CF^+ formations in CF_2^{2+} + $D_2(H_2)$ collisions, 191
Excitation
Absolute cross sections for near-threshold electron-impact excitation of Be-like C^{2+}, N^{3+}, and O^{4+} ions, 39

Femtosecond lasers
Femtosecond laser interactions with methyl iodide clusters. 2. Coulomb explosion at 397 nm, 327
Few-electron transitions
Time ordering in fast double ionization, 65
Fourier transform ion cyclotron resonance (FTICR)
Gas-phase memory of solution-phase protein conformation: H/D exchange and Fourier transform ion cyclotron resonance mass spectrometry of the N-terminal domain of cardiac troponin C, 319
Fragmentation
Electronic versus vibrational excitation in He^{q+} collisions with fullerenes, 245
Fragmentation dynamics of SO_2^{2+}, 281
Fullerene ions
Electronic versus vibrational excitation in He^{q+} collisions with fullerenes, 245
Selected-ion flow tube studies of reactions of C_{60}^{n+} ($n = 1, 2, 3$) with

chlorinated ethylenes, 215
Spontaneous and induced dissociation of singly and multiply charged fullerene ions, 267

Gas phase reactions
Gas phase reactions of dianions 2. The effect of a second charge on S_N2 potential energy surfaces: an ab initio study, 185
Glycine
Low energy collisionally activated dissociation of Cu^{2+}(glycine)(H_2O), Cu^{2+}(glycine)$(H_2O)_2$, Cu^{2+}(glycine)$_2$, and Cu^{2+}(glycylglycine)$_2$, 289
Glycylglycine
Low energy collisionally activated dissociation of Cu^{2+}(glycine)(H_2O), Cu^{2+}(glycine)$(H_2O)_2$, Cu^{2+}(glycine)$_2$, and Cu^{2+}(glycylglycine)$_2$, 289
Green's function calculations
An experimental and computational study of the double ionization of CH_3Cl, CH_2Cl_2, and $CHCl_3$ molecules to singlet and triplet electronic states of their dications, 111

Heat of formation
Heat of formation of the SiF_2^{++} dication: a theoretical prediction, 165
Heavy ion-atom collision
Multiple *K*- and *L*-shell ionizations of target atoms by collisions with high-energy heavy ions, 49
Herbicides
Doubly charged ions in the electron ionization mass spectra of 4,6-di(substituted)amino *s*-triazines, 99
High energy cluster collisions
Multifragmentation after multi-ionization of hydrogen clusters in high energy cluster-atom and cluster-cluster collisions, 259
Highly charged ions
Electron cyclotron resonance ion sources of highly charged ions: from classical to superconducting sources, 87
Electronic versus vibrational excitation in He^{q+} collisions with fullerenes, 245
Plasma rate coefficients for highly charged ion–electron collisions: new experimental access via ion storage rings, 9
Hollow atoms
Formation and cascading decay of hollow Ar atoms at a Si surface, 425
Hollow atoms
Potential sputtering: desorption from insulator surfaces by impact of slow multicharged ions, 415
Hollow ions
Beam capillary spectroscopy, 437
Hydrogen cluster ions
Multifragmentation after multi-ionization of hydrogen clusters in high energy cluster-atom and cluster-cluster collisions, 259
Hydrogen/deuterium exchange
Gas-phase memory of solution-phase protein conformation: H/D exchange and Fourier transform ion cyclotron resonance mass spectrometry of the N-terminal domain of cardiac troponin C, 319

Inner-shell ionization
Multiple *K*- and *L*-shell ionizations of target atoms by collisions with high-energy heavy ions, 49
Intense laser fields
D_2^{2+} dication as a probe of spatial alignment of D_2 molecules in intense laser light, 367
Metal clusters under strong laser field conditions, 387
Ion-induced electron emission
Kinetic electron emission in the near-threshold region studied for different projectile charges, 407
Ion-molecule collisions
An experimental and computational study of the double ionization of CH_3Cl, CH_2Cl_2, and $CHCl_3$ molecules to singlet and triplet electronic states of their dications, 111
Ion-molecule reaction
Electron-transfer and neutral-loss reactions in collisions with CF_3^{2+} with argon, 205
Ions
Electron impact ionization of Fe^{5+} ions, 27
Femtosecond laser interactions with methyl iodide clusters. 2. Coulomb explosion at 397 nm, 327
Fully relativistic calculations of cross sections for electron impact ionization of carbon-like uranium ions, 23
Multiple ionization of negative and positive ions, neutral atoms, and molecules under electron impact: data and databases, 75
Ion scattering
Dynamics of chemical and charge transfer reactions of molecular dications: beam scattering and total cross section data on CF_2D^+ (CF_2H^+), CF_2^+, and CF^+ formations in CF_2^{2+} + $D_2(H_2)$ collisions, 191
Ion sources
Electron cyclotron resonance ion sources of highly charged ions: from classical to superconducting sources, 87
Ion spectroscopy
Fragmentation dynamics of SO_2^{2+}, 281
Iron chlorides
Redox properties of charged and neutral iron chlorides $FeCl_m^n$ ($m = 1-3$; $n = -1, 0, +1$, and $+2$), 125

Kinetic emission
Kinetic electron emission in the near-threshold region studied for different projectile charges, 407
Kinetics, charge separation
Selected-ion flow tube studies of reactions of C_{60}^{n+} ($n = 1, 2, 3$) with chlorinated ethylenes, 215
Kingdon ion trap technique
Precision and accuracy of lifetimes of metastable levels using the Kingdon trap technique, 149
K-shell ionization
Multiple *K*- and *L*-shell ionizations of target atoms by collisions with high-energy heavy ions, 49

Landau-Zener
Electron-transfer and neutral-loss reactions in collisions of CF_3^{2+} with argon, 205
Laser control

Laser control of molecular ionization with intense short laser pulses, 379
Lifetimes
Precision and accuracy of lifetimes of metastable levels using the Kingdon trap technique, 149
Long lived
Long lived CH^{2+} and CD^{2+} dications, 157
Low energy electron capture (SSEC)
Excited state formation in studies of electron capture by state prepared doubly charged atomic ions, 141
Low-energy electrons
Recombination of cooled highly charged ions with low-energy electrons, 225

Magnesium
Magnesium- and calcium-containing molecular dications: a high-level theoretical study, 173
Merged beams
Absolute cross sections for near-threshold electron-impact excitation of Be-like C^{2+}, N^{3+}, and O^{4+} ions, 39
Metal clusters
Metal clusters under strong laser field conditions, 387
Metastable levels
Precision and accuracy of lifetimes of metastable levels using the Kingdon trap technique, 149
Microcapillary
Beam capillary spectroscopy, 437
Multicharged-ion surface interaction
Potential sputtering: desorption from insulator surfaces by impact of slow multicharged ions, 415
Multiple ionization
Multiple ionization of negative and positive ions, neutral atoms, and molecules under electron impact: data and databases, 75
Multiply charged ions
Calculation of cross sections and rate coefficients for the electron impact multiple ionization of beryllium, boron, carbon, and oxygen atoms, 1
Excited state formation in studies of electron capture by state prepared doubly charged atomic ions, 141
Multiply charged ions (MCI)
Kinetic electron emission in the near-threshold region studied for different projectile charges, 407
Multiple ionization of negative and positive ions, neutral atoms, and molecules under electron impact: data and databases, 75
Photon observations on excited multiply charged ions, 347
Scattering of multiply charged ions from surfaces, 393
Spontaneous and induced dissociation of singly and multiply charged fullerene ions, 267

Optical properties of clusters
Metal clusters under strong laser field conditions, 387

Peptides
A possible origin of $[M - nH + mX]^{(m-n)+}$ ions (X = alkali metal ions) in electrospray mass spectrometry of peptides, 303
Photoionization
Fragmentation dynamics of SO_2^{2+}, 281
Plasma rate coefficients
Plasma rate coefficients for highly charged ion–electron collisions: new experimental access via ion storage rings, 9
Pollutants
Doubly charged ions in the electron ionization mass spectra of 4,6-di(substituted)amino *s*-triazines, 99
Potential emission
Kinetic electron emission in the near-threshold region studied for different projectile charges, 407
Potential sputtering
Potential sputtering: desorption from insulator surfaces by impact of slow multicharged ions, 415
Primordial distribution
Beam capillary spectroscopy, 437
Protein conformation in vacuo
Gas-phase memory of solution-phase protein conformation: H/D exchange and Fourier transform ion cyclotron resonance mass spectrometry of the N-terminal domain of cardiac troponin C, 319

Radiative processes
Photon observations on excited multiply charged ions, 347
Rate coefficient
Calculation of cross sections and rate coefficients for the electron impact multiple ionization of beryllium, boron, carbon, and oxygen atoms, 1
Reaction dynamics
Dynamics of chemical and charge transfer reactions of molecular dications: Beam scattering and total cross section data on CF_2D^+ (CF_2H^+), CF_2^+, and CF^+ formations in CF_2^{2+} + $D_2(H_2)$ collisions, 191
Recombination
Recombination of cooled highly charged ions with low-energy electrons, 225
Redox properties
Redox properties of charged and neutral iron chlorides $FeCl_m^n$ ($m = 1-3$; $n = -1, 0, +1$, and $+2$), 125
Relativistic
Fully relativistic calculations of cross sections for electron impact ionization of carbon-like uranium ions, 23
Resonant coherent excitation (RCE)
Scattering of multiply charged ions from surfaces, 393

Selected-ion flow tube (SIFT)
Selected-ion flow tube studies of reactions of C_{60}^{n+} ($n = 1, 2, 3$) with chlorinated ethylenes, 215
Short laser pulses
Laser control of molecular ionization with intense short laser pulses, 379
SiF_2^{++}
Heat of formation of the SiF_2^{++} dication: a theoretical prediction, 165
S_N2 reactions
Gas phase reactions of dianions. 2. The effect of a second charge on S_N2 potential energy surfaces: an ab initio study, 185
Slow highly charged ions
Beam capillary spectroscopy, 437

SO_2^{2+}
Fragmentation dynamics of SO_2^{2+}, 281
Solvent
Gas-phase memory of solution-phase protein conformation: H/D exchange and Fourier transform ion cyclotron resonance mass spectrometry of the N-terminal domain of cardiac troponin C, 319
Spatial alignment
D_2^{2+} dication as a probe of spatial alignment of D_2 molecules in intense laser light, 367
Spontaneous decay
Spontaneous and induced dissociation of singly and multiply charged fullerene ions, 267
Stopping power
Electronic versus vibrational excitation in He^{q+} collisions with fullerenes, 245
Storage rings
Plasma rate coefficients for highly charged ion–electron collisions: new experimental access via ion storage rings, 9
Superconduction
Electron cyclotron resonance ion sources of highly charged ions: from classical to superconducting sources, 87
Surface channeling
Scattering of multiply charged ions from surfaces, 393
Surface-induced processes
Spontaneous and induced dissociation of singly and multiply charged fullerene ions, 267

Time-dependent Schroedinger equation
Laser control of molecular ionization with intense short laser pulses, 379
Time ordering
Time ordering in fast double ionization, 65
Total cross sections
Dynamics of chemical and charge transfer reactions of molecular dications: Beam scattering and total cross section data on CF_2D^+ (CF_2H^+), CF_2^+, and CF^+ formations in CF_2^{2+} + $D_2(H_2)$ collisions, 191
Translational energy spectroscopy
Excited state formation in studies of electron capture by state prepared doubly charged atomic ions, 141

Uranium
Fully relativistic calculations of cross sections for electron impact ionization of carbon-like uranium ions, 23

X-rays
Multiple *K*- and *L*-shell ionizations of target atoms by collisions with high-energy heavy ions, 49